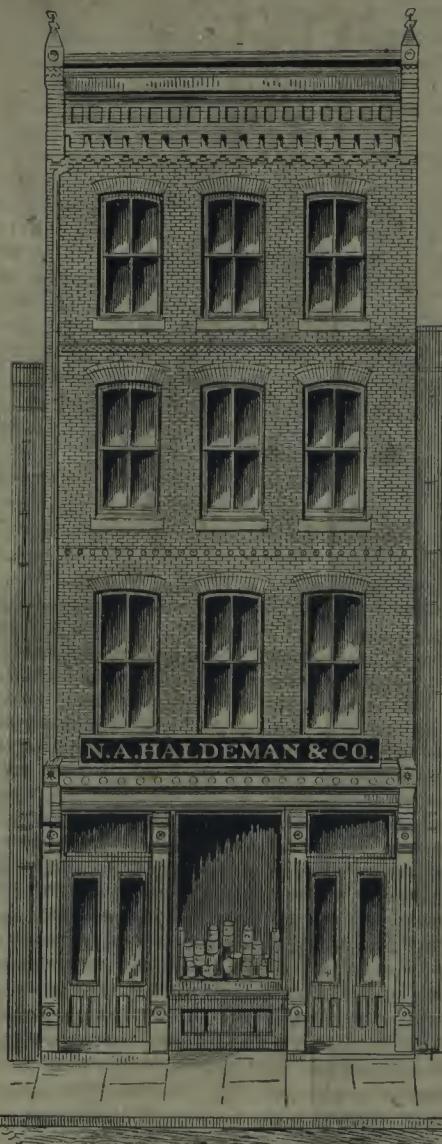


ILLUSTRATED CATALOGUE
N. A. HALDEMAN & COMPANY,



1870

1893

No. 59 North Second Street,
PHILADELPHIA, PA.

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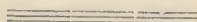
1870.

1893.

+ AWARDED +

Diplomas at the Virginia State Fair, 1882.

Diplomas at the W. Virginia State Fair, 1883.



CATALOGUE AND REFERENCE BOOK

—OF—

N. A. Haldeman & Company,

MANUFACTURERS OF

STEEL & IRON ROOFING,

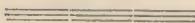
Corrugated Iron Roofing and Sidings,

59 NORTH SECOND STREET,

PHILADELPHIA, PA.

Agents Wanted.

Send for Price List, Etc.



PHILADELPHIA:
CASTLE & HEILMAN PRINT,
27 North Second St.
1893.

BESSEMER STEEL ROOFING.

ROLL CAP IRON ROOFING.

PRESSED STANDING SEAM STEEL ROOFING.

V CRIMPED ROOFING.

CORRUGATED IRON ROOFING.

CORRUGATED IRON SIDINGS.

IRON WEATHER-BOARDING.

GALVANIZED IRON ROOFING.

GALVANIZED STEEL ROOFING.

READY-ROLLED TIN ROOFING.

BUILDING PAPERS, OF EVERY DESCRIPTION.

TARRED FELTS, 1, 2 AND 3-PLY.

ASBESTOS SHEATHING.

DRY PASTE AND MIXED PAINTS.

METALLIC CEMENTS.

GRAPHITE PAINTS.

GALVANIZED AND TERNE PLATE CONDUCTORS

AND GUTTERS.

BEADED CEILINGS AND SIDINGS.

METAL BUILDING MATERIAL, OF EVERY DESCRIPTION.

N. A. HALDEMAN & COMPANY,

59 NORTH SECOND ST.,

PHILADELPHIA, PA.

To our Agents and the Trade in General:

In presenting this, the sixteenth annual catalogue and price list, to you, in which we have endeavored to eclipse our former issues and to illustrate to you the various uses sheet steel and iron can be adapted to, and which at the present time stands superior to any other material used for the same purpose.

We also especially call your attention to our removal to our new and commodious building, which was forced upon us, by the steadily increasing volume of our business year by year, and which we have fitted up regardless of expense for the manufacture of Roofing, Siding and Ceilings, the quality of which we especially call your attention to. We use nothing but the best material in their manufacture and guarantee them to be the equal of any that are made. In our new building we can carry a very large stock of finished and unfinished material, and therefore can supply your wants with the least possible delay.

We also wish to call builders attention to the special inducements which we offer them to handle our Patent Steel Roofing and be convinced that it has no equal in Durability, Prices, and Construction.

Our shipping facilities are unexcelled, having direct communication, both by Rail and Water, to all parts of the country.

To our Patrons:

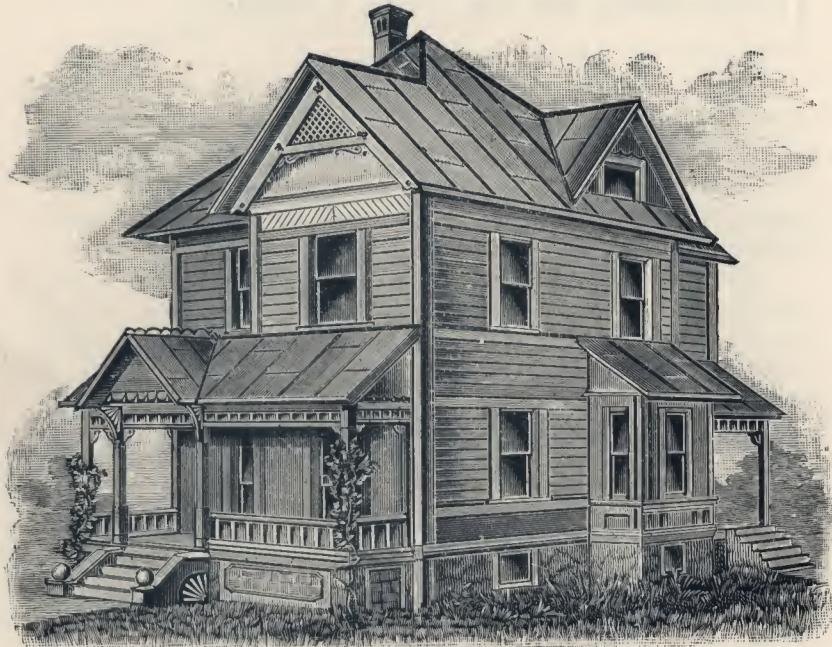
Thanking them for their patronage and favors of the past year, and hoping for a continuance of the same, we respectfully call their attention to our New Price List and Catalogue of the coming year.

N. A. HALDEMAN & CO.

59 North Second St.,

Philadelphia, Pa.

N. A. Haldeman & Co. Patent



BESSEMER STEEL ROOFING

Is the most popular, durable and cheapest roof in the market, and has a larger sale than any other metal roof now manufactured in the United States.

Beware of imitations and see that each roll is labeled

N. A. Haldeman & Co., 59 North Second St., Philadelphia, Pa.

Fire, Wind, Lightning, Water and Rust Proof.

Millions of feet used annually in the United States.

Can be laid on any roof, flat, or pitched, on either sheathing boards or lath. Quality and durability guaranteed, mode of construction unequalled.

Suitable for dwellings, stores, barns, factories, mills, sheds, cotton gins, churches, railroad buildings, etc.

Liberal terms quoted mills, factories, etc.

Tools loaned and printed instructions furnished.

PLAN OF CONSTRUCTION.

Our Roofing is the nicest, most perfect and reliable in the market.

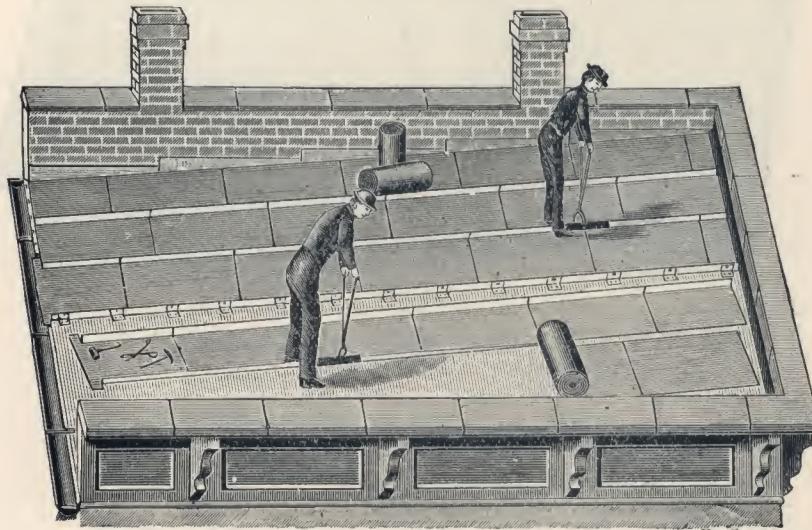
It is easily formed, and can be laid by any ordinarily intelligent workmen, and can be laid upon any kind of building, or over any old roof.

It is much superior to a separate cap roof.

Our method of forming the seams is acknowledged by all to be the best, the simplest, and most flexible joint ever invented.

CUT GIVING GENERAL IDEAS OF CONSTRUCTION OF

The N. A. HALDEMAN Patent.



There is as much difference in the value of the different plans of construction and quality of material used, as in slate, tin or shingle. It is false economy to buy a faulty and inferior roof to save a small difference in price.

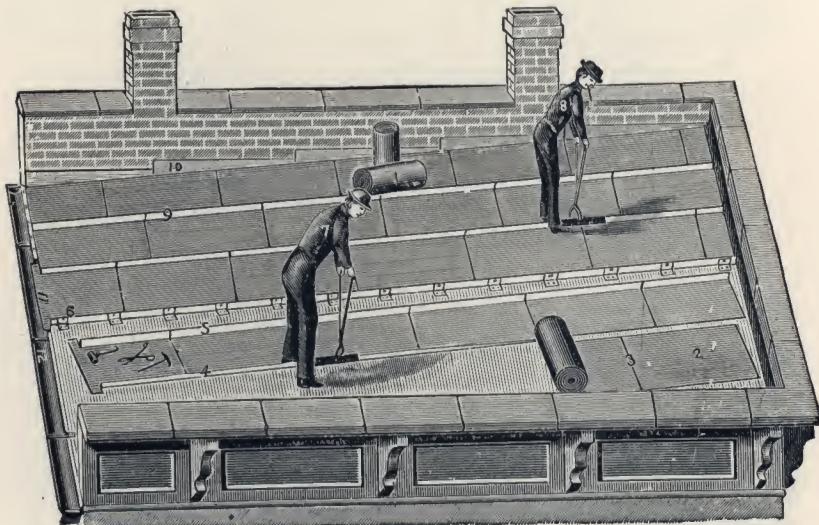
No material is too good to provide the protection which roofs should furnish.

The best is always the most satisfactory and the cheapest in the end, though the cost may be more at first.

A difference in cost always means a difference in real value.

Estimates and quotations cheerfully furnished upon application. Write to us for all particulars.

HOW APPLIED.



EXPLANATIONS TO FIGURE:

1. THE ROOFING IN ROLLS.
2. THE ROOFING AS UNROLLED.
3. CROSS LOCK OR FLAT SEAM.
4. $1\frac{1}{2}$ INCH EDGE TURNED UP WITH TONGS.
5. 1 INCH EDGE TURNED UP WITH TONGS.
6. CLEATS OR FASTENINGS.
7. MAN TURNING EDGES WITH TONGS.
8. MAN FOLDING EDGES WITH SEAMER.
9. FINISHED STANDING FOLDED LOCK SEAM.
10. FLASHINGS ALONG THE FIRE WALL.
11. LAP TO TURN DOWN AT EAVES AND GABLE EDGES.
12. EAVE TROUGH.

DIRECTIONS FOR LAYING.

Measure the distance from eave to comb (of roof); cut strip from roll the length required; turn the outside edge of the first strip you lay (when you commence) down over the barge 1 inch, and nail it to the barge; then take the $1\frac{1}{2}$ inch tong, and turn up the other edge, nail the anchor part of cleat to the building (close up against the wide standing edge) and bend it over, press the cleat close; place cleats about 18 inches apart.

Second Sheet.—Tong up first side one inch and second side $1\frac{1}{2}$ inches; slip the inch edge up against the $1\frac{1}{2}$ inch edge of the strip laid, then turn the wide edge over the narrow one with the seamer—the seam is then finished—the end of the cleat comes back over the top of seam which holds the sheet with wide edge. When there is a piece of a roll left, hook it on the next roll and pound down the seam; by doing this there will be no pieces and there will be no waste.

Comb and Hip Seams.—First pound standing seam over flat from 6 to 8 inches from comb, if the ends are not even, trim them. Allowing a projection over the centre of comb of 1 inch, tong back (with inch tong) so it will be on a slant with opposite side. Lay the other side of roof; let the iron extend 1 inch over part tonged back at comb (or hip); when both sides of roof are laid, catch hold on both sides of comb (with seamer) and bring both edges up straight; the edge on last side laid stands 1 inch higher than the first side; turn the wide edge over the narrow one, and you have seam along comb.

Gutters.—Take strip length of gutter, turn out-side edge over one inch and nail; then break the iron down into the gutter so that it fits down close, turn back of gutter part way up, then nail close to part turned up; after it is nailed turn edge over just far enough so you can hook roof to gutter; when a sheet is hooked to gutter pound it down close.

Valleys.—You put in valleys by fitting iron down close in valley, and turn edge on each side and nail same as for back of gutter, then cut sheets so as to hook to valley, and pound it down.

CUTTING STRIPS TO LENGTH.

For Flat Roof, unroll and cut a strip of steel to reach from upper to lower end allowing for flashings at the upper ends and side, and the lap down at the eave.

For Ridge Roof, allow for lap at eaves and *one inch* for the ridge seam on the side of the roof laid first. When laying the *opposite side* of the roof, allow one and one-half inch for the seam as one-half inch of this is to be folded over the one inch allowed on first side.

For a Hip Roof cut to length the same as for a Ridge Roof; in splicing for a Hip Roof, if *properly cut*, there need be no points left or waste more than in splicing for a Ridge Roof. Square the points by cutting off enough of the point to leave it wide enough to provide for the side edges for the strip, otherwise such biased pieces would be a few inches too short *after turning edges and folding*. It is not necessary to cut off the whole point full width, as some thoughtlessly do.

TO FASTEN ROOF TO BUILDING.

Use all the cleats we send you (33 to each square,) and the roof will not vibrate, become loose or blow off. Place the cleats 15 to 18 inches apart along and against the one inch and a half edge, (see cut) drive two nails through the foot of each cleat into the lath or sheathing boards, *press the sheet down firmly* and bend one end of each cleat over the one inch and a half edge, then place the one inch edge into position and fold down with seamer.

For laying steel over a Shingle Roof, use $1\frac{3}{4}$ inch, No. 10 Steel Barbed Nails.

TO MAKE RIDGE and HIP SEAMS.

When one side of the roof is laid, mallet the standing seams down flat at the ridge for about six inches, so that the folded side of the seam will be under; use a flat piece of iron under the seam when malleting; (for this purpose we use a piece of a leaf from an old elliptic spring); then with the one inch tongs turn the edge along the ridge back over the side that is laid, so as not to

be in the way while the opposite side is being laid ; mallet down the standing seam of the last side laid, in the same way as the first, then with the $1\frac{1}{2}$ inch tongs turn both edges at once up straight, and with the one inch seamer turn a one inch fold over the one inch edge. This will make a neat and substantial ridge or hip seam one inch high.

To Avoid Danger in Laying Very Steep Roofing,

Use ladders suspended over and fastened together at the ridge. Make ladders by nailing wood cleats across a wide board, or to two narrow boards or lath, or the man doing the seaming may be protected from falling by fastening a belt to his body, connected with a rope to be held by a man sitting at the ridge. This is seldom needed however.

GENERAL INSTRUCTIONS.

Examine carefully the sample of roof sent to you, and all the different cuts of the roof—which show how to make the standing seams, flashings, laps at eaves, edges, etc.

Each roll of roofing is marked on the paper wrapper, giving the length of the strip in the roll, in feet and inches. The length and covering width is also marked *on a label, pasted on inside of each roll, near the end.*

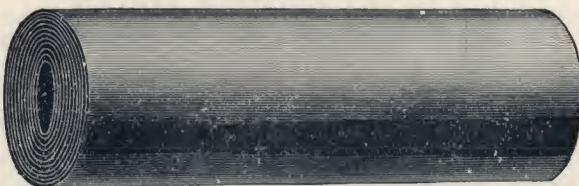
¶ In measuring roof after it is laid, include the steel used in lap at eaves and sides of building, ridge and seams.

Make no deductions for ordinary openings—such as chimneys, scuttle holes, etc.

Agents should *generally* charge more per square foot for gutters and valleys than for plain roofing according to circumstances.

¶ No one, as yet, has ever failed to get this roofing on right, after seeing our tools and reading these instructions.

Use your own good judgment in this, as in any other kind of work. Be thorough, and if you don't clearly understand this or that, examine the cuts again, study the instructions, and you will be competent to do a good job.

WE GUARANTEE.

Our Steel Roofing made of genuine Steel only, and manufactured specially for this Roofing by thoroughly experienced workmen and is guaranteed to stand the test of double seaming either lengthways or crossways the sheet without breaking. It is soft and pliable.

We offer our Steel Roofing at a slight advance in price to Iron.

But few manufacturers understand as yet how to make best quality of Roofing Steel.

We manufacture but one grade of Steel Roofing, which is of the best quality to be had in the market.

Our Roofing requires no rivets, screws, tongues, eyelets, counter-sinking or breaking the surface in applying this roof.

It is put up in rolls of 110 feet, which covers 100 feet when laid.

Steel Roofing has rapidly gained the lead and is destined to hold it.

Steel Roofing is Rust Proof, Fire and Lightning Proof.

Paint is the protection, Steel the base.

Our flat seams or cross locks are water tight, and far better than when made on the roof, with nothing solid to mallet on, as is required by roofs put on in separate sheets, and the *advantage of having these seams ready-made is far greater than having the side edges ready turned*, as experience has proved.

It is much superior to a SEPARATE CAP ROOF.

No argument is necessary to prove the superiority of Steel and Iron Roofing over tin, slate, shingles, tarred felt paper, &c.

We are the pioneers in Steel and Iron Roofing, and our Roofing can be relied upon more safely than material from less experienced parties, notwithstanding the wild statements they publish about their goods.

The established reputation of manufacturers should be considered by buyers when placing their orders.

Some manufacturers quote Steel Roofing, but use only an ordinary quality of Iron, thus deceiving customers and doing a great injustice to honest competitors.

The size of sheets are 26 x 104, Birmingham guage.

IRON ROOFING.



Some people still prefer Iron Roofing to Steel.

Iron Roofing was first thought of, and Steel followed. Iron Roofing if carefully and properly manufactured, makes almost as good a roof as Steel.

We guarantee all our Iron Roofing to be carefully manufactured from extra charcoal Iron, which is acknowledged to be the finest quality of manufactured Iron in the market.

IT IS CHEAP, SAFE AND DURABLE.

Water, Fire and Lightning Proof.

Every sheet of our Steel and Iron Roofing is carefully and thoroughly examined by experienced workmen before it is painted or leaves our factory.

It makes a light roof, weighing about 75 pounds to the square.

It forms its own ridge and hip capping by a folding seam combined with the roof, and can be laid on lath three inches apart or on sheathing boards, and attached to either steel or tin gutters and valleys on dwellings, or any other kind of buildings.

Some plans of metallic Roof are not suitable for all kinds of buildings.

Sheathing boards are better for any kind of roof, though lath can be used with equal convenience.

Many plans of construction for metallic roofs now on the market are objectionable, and should not be used on buildings requiring a good and tight roof, however cheap the price may be.

It is a great mistake to suppose all metallic roofs alike, or of equal value.

Samples, showing plan and quality, mailed free at request; compare with others.

Strong and durable, not weak and defective.

Firmest seams and most secure fastenings.

How Our Roofing is Prepared.

Every sheet of our Steel and Iron Roofing is thoroughly inspected and all imperfect sheets are thrown out; the edges are trimmed by machinery specially invented for that purpose.

THE PAINTING.

Our method of Painting is superior to all others, being put on by machinery of our own invention. The sheets pass between rolls with a pressure of 400 pounds, which makes a uniform coat on both sides.

Materials Used for Painting.

We guarantee our Paint to be of the best Iron Oxide Metallic, ground in pure Linseed Oil to the proper consistency for a perfect coating, which can hardly be scraped off with a sharp knife.

This paint is in perfect affinity with steel and iron, and will wear longer than any other invented.

We make our paint and guarantee that it contains no cheap or injurious ingredients; will never crack, peel or blister as the majority of Paints will do that now flood the market.

We caution buyers against using or buying such cheap or spurious paint where the intention is for using it for roofing purposes. Stop and consider, and you will always find that lowest in figure means lowest in quality.

PITCH OF ROOF.

Our Steel or Iron Roofing can be laid at any pitch, though one inch or more to the foot is better for any kind of roof. Our Steel and Iron Roofing being painted on both sides, before folding, makes the standing seams more water tight than such seams in Tin roofs, which are not painted until after the roof is laid and the folding of the seams done with no paint inside. Our Roof, by reason of its superior plan of construction, is suitable for a flatter roof than is safe for any other Steel or Iron standing seam, or Tin roof. If patrons, when ordering roof, will send us plans or specify manner or kind of building, we will send them written instructions of how Roofing should be laid, outside of our regular printed instructions, which we send with all orders.

HOW SHIPPED.

One square of our Steel or Iron Roofing, as sold by us, consists of connected sheets 26 inches wide and 50 feet long, and 35 cleats or anchors, which when laid will cover 100 square feet.

We always ship sufficient paint and nails for each square unless otherwise ordered, and charge separately in our invoice; or, if parties desire it, we will ship a sufficient quantity of our ready mixed paint to apply the final coat.

We mark strips to cut any length desired when specifications in feet and inches are given by the customer, but not otherwise. The length multiplied by two will give the number of square feet in the roll as sold by us.

Customers can buy the necessary nails and paint elsewhere, if preferred, though to secure the most suitable kind, it is advisable to buy them from us.

Our Steel and Iron Roofing is shipped in rolls containing 110 ft. secured by wire, unless otherwise ordered.

Each roll contains a number of painted sheets connected at ends, as shown in our sample.

We always ship by the lowest rate obtainable and ship our rolls at 70 lbs. to the square or 100 feet.

As we have largely increased our capacity and facilities, we can always ship promptly on the same day order is received, and thus save any delay or annoyance to our customers.

We always send a complete set of tools to all parties when sending in their first order.

Tools must be returned to us, freight prepaid, as soon as the roofing is laid, with our return card attached and bill of lading sent us as proof of shipment, and to enable us to trace if lost in transit.

DIPLOMAS.

We were awarded Diploma and medal at the Virginia State Fair in 1882 against three other competitors.

We were also awarded Diploma at the West Virginia State Fair and Exposition in 1883, against two other competitors.

We consider such evidence the most practical proof of the superiority of our roofing.

LIGHTNING PROOF.

This claim is an absolute fact. Lightning has never yet been known to injure or strike a building covered with a Steel or Iron roof from us.

Read what the insurance authorities say on this matter.

Insurance is also a great deal less on buildings covered with a Steel or Iron Roof. Such buildings are allowed within the fire limits of all cities and towns.

WATER PROOF.

This we can positively state: we have never yet received during the twenty years we have been manufacturing this roofing any complaint of getting out of repair or leaking, where this roofing has been properly applied and according to our printed directions, as each of our sheets are separately examined by experienced workmen before they are connected together.

To keep a Steel or Iron Roof in thorough condition, it should be painted at least once in every five years.

We consider the above as of sufficient evidence that the roofing as sold by us is strictly and absolutely water proof.

HEALTHY WATER.

As there is nothing injurious in our paint, water coming off of any of our roofs can be used for drinking purposes if so desired. Its smooth surface holds but little dust, which disappears with a few minutes rain, after which the water is clear and healthy. The cistern water is a matter of great importance; by using our Steel or Iron Roofing, your cistern water will always be clear and healthy.

Patrons and Agents, when contracting for buildings, should specify the N. A. Haldeman & Co. Roofing Materials to be used.

WHY Better than Separate CAP ROOFS?

Because our Folded-Lock seams are more reliable and water tight, and have no caps to become loose and detached.

Separate caps cannot be made to conform snugly to the joints if the surface is the least uneven without causing the edges to bulge or buckle, and in time become loose and the whole roof endangered.

These objections are overcome by our plan of solid and firm cap and sheet combined folded lock seams.

Our flat cross-lock seams are water-tight and far better than when made on the roof, with nothing solid to mallet on, as is required by roofs put on in separate sheets.

Experience has proved that to have these cross seams ready-made is far greater advantage than to have the side edges ready turned and the cross seams not made.

Our method of forming the seams is acknowledged by all to be the best, the simplest and most flexible joint ever invented. This is evidenced by the favor with which it is received by architects, builders and mechanics wherever it has been introduced. There is no such thing as a leaky roof or a roof being blown off when put on by our plan. We have sold Roofing to thousands of persons who have done their own roofing. Recollect, it does not require a skilled mechanic to put it on, as full printed instructions are sent with all orders.

Its Advantages Over Slate.

Slate Roofing is very costly, all things considered. Slate Roofing will crack by freezing and thawing, and from the heat of adjacent fires; it will crumble and slide and blow off; it is difficult and expensive to repair, and is six or seven times as heavy as Steel or Iron. Experience has shown that it requires a very strong and expensive structure to bear it up and an extreme pitch, which makes a large amount of surface. They often cause buildings to settle out of shape, and the rule of measurement is always greater than for Steel or Iron Roofing.

In many states firemen are not required by law to go on Slate Roofs for obvious reasons.

They cannot be walked over safely while repairing gutters, chimneys, lightning rods, &c., and are not lightning proof. Slate roofs hold more heat in summer and more cold in winter, and leak when gutters are flooded with melting ice.

All things considered, Slate Roofs are more costly than generally supposed.

COMPARED WITH TIN.

It is much stronger, will not vibrate or rattle, and will last longer. The joints are elastic and few in number. Tin has from five to ten times as many joints, and being made rigid with solder, often breaks from contraction. Steel and Iron both take and hold paint better than tin, and as paint is the protection to either, the surface that is strongest and holds the paint best is the safest to use. Tin roofs are out of repair so often that there are five times as many leaky tin roofs in 100 of each. Also, tin requires to be laid on tight sheeting, which costs about one dollar per square extra, while our roof may be applied on lath the same as pine shingles, or over an old roof, thus proving that a Steel Roof is stronger, has fewer seams, can be applied faster and on a cheaper surface.

Tin roofs are usually allowed to rust a few weeks to take paint better, then painted at an additional cost of fifty cents per square. Steel and Iron, being already painted, can never commence to corrode.

COMPARED WITH SHINGLES.

Shingles were once made of the best selected timber and lasted longer than now. They are now made mostly of limbs, odd cuttings, and such timber as cannot be made into anything else, and are short-lived at best, and frequently leak rain and fine snow. The average age of shingle roofs is only twelve years, and in towns and cities where coal is used, only ten years. Shingles are old-fashioned and have seen their best days.

"NINE-TENTHS OF THE FIRES OCCUR ON THE ROOFS."

People are now guarding against fire more than ever before.

INSURANCE IS ABOUT ONE-THIRD LESS IN CASE OF AN
IRON OR STEEL ROOF.

STEEL Roofs will last many years longer, look richer and better, and are safe against fire and lightning.

Buildings covered with Iron are permitted within the fire limits of all cities and towns. Such buildings can be made to have a beautiful appearance by using good taste in selecting materials, and applying the same in a good workmanlike manner.

HOW LONG WILL IT LAST?

We have frequently been asked how long our Roofing will last and we answer by saying that every person knows that as long as Iron or Steel does not rust it will last, and as long as it be kept painted it will not rust. There is never any wear on the under side to wear the paint off, and if the upper side is painted every four or five years, we do not see anything to prevent its lasting 100 years.

For this purpose we always keep on hand a large stock of ready-mixed paints, which we supply to our agents or customers at almost cost price. A roof can re-painted at a very small nominal expense.

METALLIC CEMENT.

Roofers and builders have long felt the need of some material to take the place of solder for repairing old roofs. The successful use of our Cement for 16 years gives us utmost confidence in introducing it as the only cement in the market that can be used with success in laying or repairing Iron, Steel or Tin roofs or gutters. By thinning it down with boiled linseed oil it makes the best paint or coating for steel, iron or tin now in use.

We guarantee our Cement to be free from acids, alkalies or tar substances, thus leaving the water perfectly clear and pure.

ITS composition is such that it remains in an elastic condition for years, at the same time hardening on the surface sufficiently to walk over it without injury. Owing to its elasticity, it accommodates itself to the expansion and contraction of metal, and does not crack or peel off. Old tin roofs and gutters that were re-painted some ten years ago, and seemed comparatively worthless at that time, are good today. It is put up in iron cans holding fifteen, twenty-five and fifty pounds. Send for price list.

DIRECTIONS FOR REPAIRING METAL ROOFS.

For repairing old metal roofs or gutters, clean off *all* the dirt and loose paint ; have the roof or surface *perfectly* dry ; then fill all holes and broken places with cement. You should then give the whole surface one good coat of our mixed metallic paint, if you have it ; if not, you can add sufficient boiled linseed oil to some of the cement to reduce it to the consistency of good paint. Should you wish it to dry quickly, add a little Japan dryer. Send for prices.

REPAIRING IRON ROOFING.

This is something we have never had to do in the sixteen years we have been manufacturing it, and do not expect to have to do it for many years to come. As we are often asked if it can be done, we say yes, and at much less expense than any other roof. In case a large hole should be knocked in the roof, it is very easy to lift the sheet, cut out the damaged part, and lock a new piece in. A small hole can be cemented with our metallic cement, which will hold longer and last better than solder, and can be done by anyone.

Our Mixed Paints are prepared ready for use. We guarantee them to be made of the best material, and the most economical paints in the market. They are extensively used for painting outside work. Their lasting qualities make them specially adapted for Steel, Iron, Tin and Shingle roofs, rough wood work, brick walls, out-buildings, fences, floors, iron work, railroad buildings, bridges, cars, vessels, steamboats, &c., &c. As a roofing paint, they have no equal for purity, durability and cheapness. Send for prices. The colors are Red and Brown, made of the famous Rossie and Hematite iron ore, and over 70 per cent. Iron. One gallon will cover from 400 to 500 square feet.

V CRIMPED ROOFING.

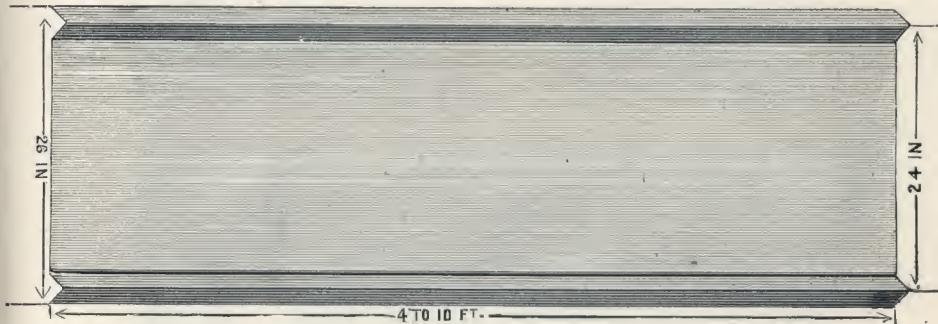
Can be laid over sheathing, direct to rafters and over old shingles, and on any roof having a pitch of two inches or more to the foot.

It is made of Standard Gauge Sheet Iron and Steel, and makes a cheap, durable, fire proof roofing and Siding, used largely for covering sheds, barns, and other buildings.

This roofing can be applied by any one.

We carry in stock all lengths from 4 to 10 feet.

Fig. 6.



This cut shows a sheet of our Crimped Roofing and Siding.

A square contains $6\frac{1}{4}$ sheets 26x96, which will cover 100 square feet, weight about 75 lbs., and when packed for shipment about 80 lbs.

CRIMPED ROOFING LAID ON SHEATHING-BOARDS.

Fig. 7.



V CRIMPED ROOFING.

Directions for Laying.

Turn the end locks, with jointer, by bending one end of the sheet up and the other end down, Fig. 9. Lap one crimp over the other and both over the strip of wood, which we furnish with roofing. Nail through the over lapping sheets and strip into the sheathing or roof support about one inch. This roof is often laid with ends lapping from 4 to 6 inches without locking them, Fig. 8.

Fig. 8.

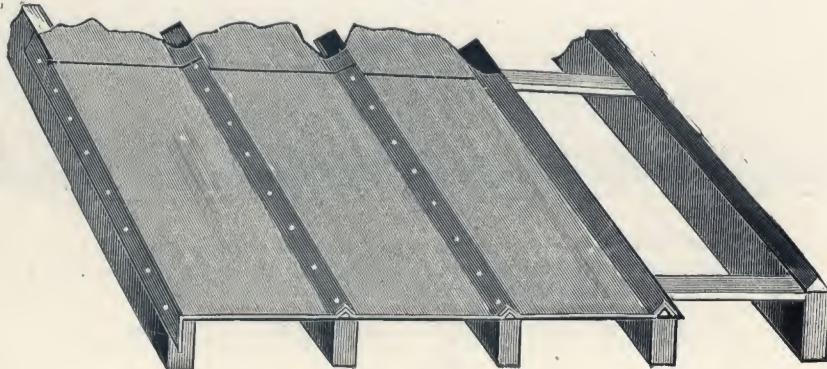


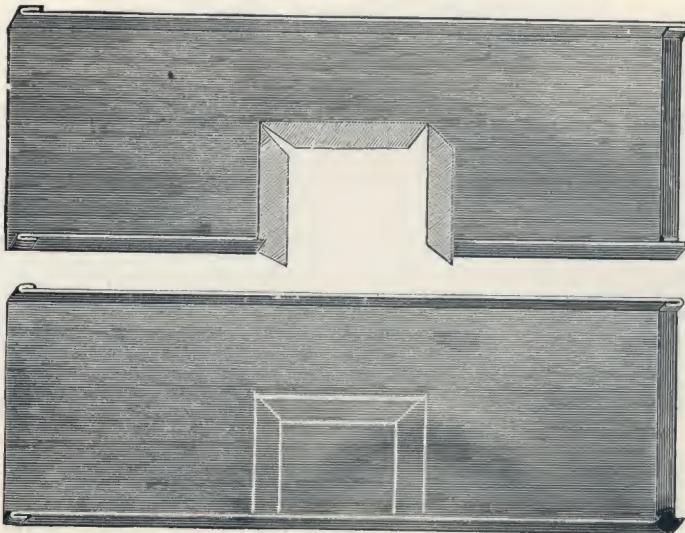
Fig. 9.



General Instructions For Flashing Chimneys.

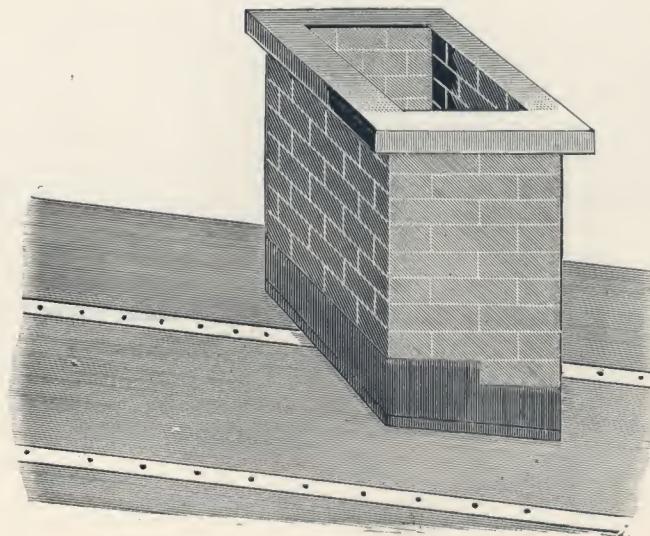
Showing How To Cut Around Chimneys.

Fig. 10.



In laying around chimneys get the distance from each course and mark out the sheet so as to leave a flange of 3 or 5 inches when cut to turn up. See Fig. 10. Cut the inside lines and turn at the outside lines to form the flange to fit the chimney. See Fig. 10. The seam on the upperside of chimney is cut 6 to 8 inches above, and flattened out so as to allow the water to pass around. Nail or screw this flat surface down after putting some of our cement in the laps, then counter flash the chimney as shown in figure 11.

Fig. 11.



CORRUGATED IRON

—FOR—

Roofing, Siding, Ceiling, Doors, Shutters, Awninges, Etc.

Made from Black, Painted, and Galvanized Iron.

All our corrugated iron is guaranteed double refined box annealed, free from holes and scales, and of standard gauges adopted by National Iron Association and Birmingham Gauge. We use nothing but the best Iron and material under all circumstances.

Corrugated Iron is the strongest form of sheet metal, and is very largely used for Roofing, Ceiling, Siding, and Partitions for fire proof buildings, and can be applied on sheeting boards or on wood or iron rafters, or purlines without sheeting boards.

In our new building, we have added the latest improved machinery both for corrugating and painting, which will enable us to furnish our customers with Corrugated Iron of uniform shape and size so that there will be no trouble in making sheets to fit when applied with accuracy.

We corrugate by pressure, which produces perfect formation, doing away with the old process of corrugating by rolls, which does not produce a perfect formation.

We carry in stock all gauges from No. 16 to No. 28 inclusive, in 6, 7, 8, 9, 10 foot lengths, and of a width to lap one corrugation and cover 26 inches.

We make all other sizes to order promptly.

We make estimates when desired on spaces to be covered if detailed dimensions are given.

All orders for lengths carried in stock will be promptly shipped the same day as order is received as we have largely increased our facilities thereby enabling us to make prompt shipments.

CORRUGATED SHEETS.

Fig. 12.



Figure 12.—This shows our Standard $2\frac{1}{2}$ inch Corrugated Sheets, used for all covering purposes, especially adapted for Roofing, Siding, Partition, etc., all lengths carried constantly in stock.

In ordering, if length of sheet is not stated, we will ship 8 foot sheets from stock. Gauges 16 to 28 inclusive.

Fig. 13.



Figure 13.—Shows our Standard $1\frac{1}{4}$ inch Corrugated Sheets, used for Roofing, Sidings, Ceilings, etc., also used for inside decorations, when used for roofing we advise lapping two corrugates on the side of sheet, but when used for other purposes a lap of one corrugate is sufficient.

Black, painted and galvanized, carried in stock.

All gauges from No. 16 to No. 28 inclusive carried in stock.

CORRUGATED SHEETS.

Fig. 15.



Figure 15 shows our $\frac{3}{4}$ inch Corrugated Sheets, principally used for Ceilings, Sidings, Partitions, etc.

All regular lengths carried in Stock.

CURVED CORRUGATED IRON.

Fig. 16.



Figure 16 shows our Standard $2\frac{1}{2}$ inch Corrugated Curved Sheet for Roofing and Ceiling.

We curve the sheets to any radius required, and of any length.

We curve the $1\frac{1}{4}$ and $2\frac{1}{2}$ inch Corrugate, and in any gauge from No. 16 to No. 27.

We also curve sheets for awnings etc., upon specifications.

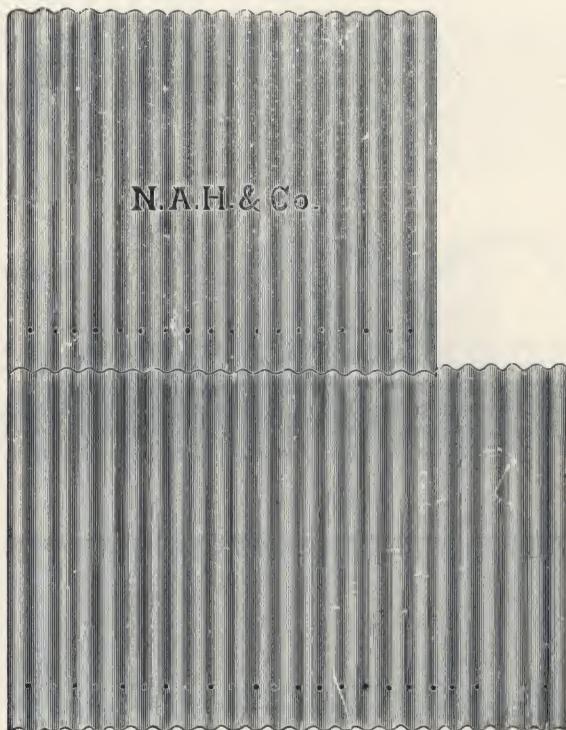
CORRUGATED ELEVATOR SHEETS.**Fig. 17.**

Figure 17 shows Corrugated Iron Sheets for siding Grain Elevators.

The Corrugates are made cross-wise of sheets, so when applied they will run up and down the building, giving more elasticity to the iron, and preventing its buckling, as other Iron Sidings do when the building settles. Corrugations, same size as is shown in Figures 12 and 13.

The sheets are laid in such a manner that the Elevator sides have a chance to settle without disturbing the fastenings of the sheet. The sheets are laid on with a 2 inch end lap and the nails are 2 inches above the upper edge of the lower sheet, thus allowing the sheets to slip 2 inches in every 32 inches, as the sides of the Elevator settles.

In ordering mention "Elevator" Siding. The regular size of sheets are 4 and 6 feet.

CORRUGATED SHEETS.

Showing Corrugated Iron as Applied

Begin to lay the sheets from the left hand corner of the eaves, and end of building, the first sheet covering the lower left hand corner projecting one corrugation over the side, and about 3 inches over the eaves. Hammer the projecting side corrugation down against the edge of sheathing, nailing it in place. Nail across the eaves at top of alternate corrugations. Next place the second sheet to the right of the first, lapping one corrugation and with the same amount of eaves projection. Nail these two sheets where they lay, through the tops of the corrugations, as shown in the following cut, and about 8 inches apart.

Fig. 18.



Nail also along the eaves, as on the first sheet, proceed in this manner from left to right across the length of the roof. Then begin at the left and lay the second row in the same manner as the first one, allowing the sheets to lap over the first row 3 to 6 inches, according to the slope of the roof and the length of the sheets used. Nail across the lower ends of the sheets in the second row, about 2 inches from the end of the sheet, through both sheets.

Fig. 19.

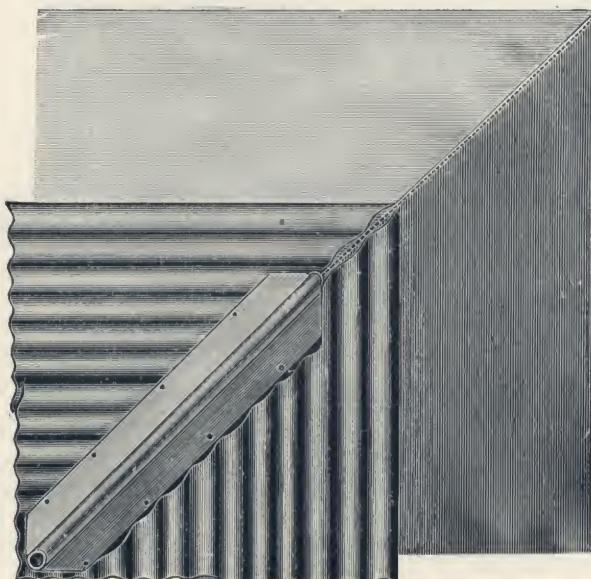


Figure 19 showing hip covered on roof, and hip joint covered with ridge cap. See figures No. 19 and 20.

CORRUGATED SIDING.

Directions for Laying Corrugated Siding.

Commence at left hand corner, lay the courses from base to cornice, giving sheets a lap of one inch at the end and one corrugation at the side of sheet. Nail side laps every six inches and end laps in every other corrugation. Do not let the Iron Sidings touch the ground on corners use corner caps as shown in figures 23 and 24.

FIG. 20.

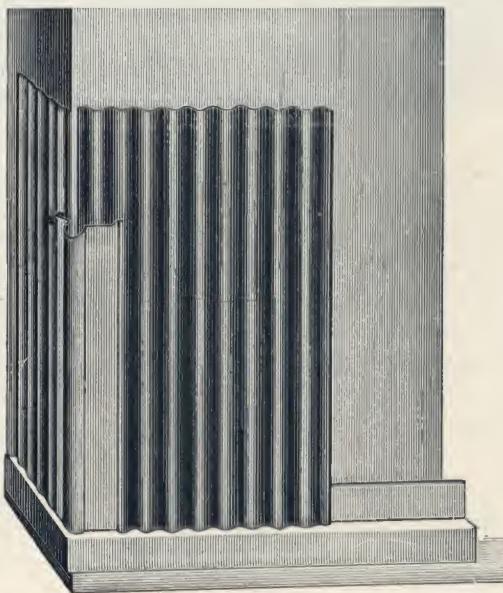


Figure 20 shows application of Corrugated Siding.

If Siding is put on Studding, care should be taken to have the Studding same distance between the centers of Studding as the width of Iron used.

CORRUGATED ELEVATOR SIDING.

In covering Grain Elevators it is necessary to use swinging scaffolds. Commence at the base and carry up the courses to the eave the length of scaffold. Nail in every corrugation 3 inches from lower edge of sheet, this allows for the settling of 2 inches in every sheet. No nails must be put in side laps. Finish up the corners by putting on ridge capping or corner pieces as shown in figures 23 and 24.

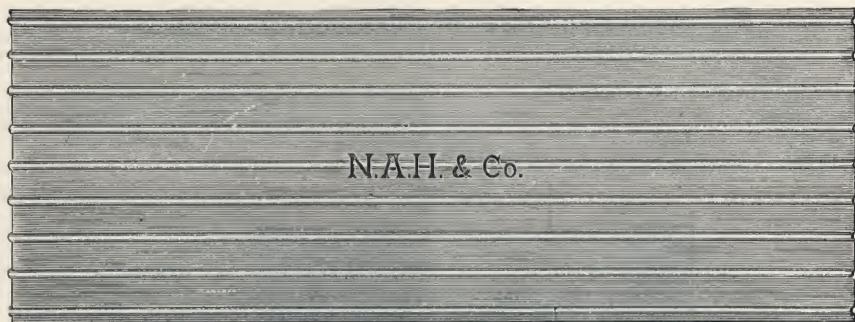
BEADED SIDING AND CEILING.**Fig. 21.**

Figure 21 shows sheet of Beaded Siding and Ceiling.

Beaded Siding and Ceiling is made from the best quality of box annealed Iron, painted on both sides with the best of Iron Ore Paint, ground in pure linseed Oil.

Sheets are same length and gauge as for Corrugated Iron.

When cut less than 8 feet, any special length, we charge for cutting and waste of material.

For a cheap, fire-proof ceiling, there is none better in the market.

No special directions can be given for laying these sheets, as they can be laid in so many different ways. It can also be applied with Panel Strips so as to make the panels of size to suit purchaser.

As a ceiling it can be applied directly on the floor joists, on boarding, or put on old plaster.

In laying this, lap the end of sheet one inch and one bead on the side of sheet. Nail side laps every 3 inches and end laps close to every bead.

The painting is a matter of taste, as it can be re-painted any color to suit purchaser after it is applied.

Always carried in stock.

SHEET METAL WEATHER-BOARD.**Fig. 22.**

Figure 22 shows our Sheet Metal Weather-board.

Equal to Corrugated Iron, Wood or Stone, one third the cost of brick or stone. Neat in appearance, easily applied.

All lengths and gauges, as in Corrugated Iron, and of same quality

It's lasting qualities compare with brick and stone.

If Steel is desired instead of Iron, add 25 cents per sq. advance.

Rated at the same as brick and stone by the Fire Underwriters.

Weight, about 75 lbs., and when packed for shipment, about 80 lbs.

Made from the best Box Annealed Iron, painted on both sides with the best Iron Ore Paint, ground in pure Linseed Oil.

Black, Painted, and Galvanized kept in stock.

HOW APPLIED.

Lap sheets one crimp at sides and about two inches on end. Nail along Horizontal laps four to six inches apart, immediately under projecting crimp and at end laps place one nail at upper edge of each face or board. No special tools are required for applying.

We also make a Corner-board to use with Weather-boarding which must be ordered separately.

QUALITY OUR MOTTO.

RIDGE, CORNER AND HIP CAPPING.**FIG. 23.****FIG. 24.**

Figures 23 and 24 show some of the different kind of Ridge, Hip Capping, we make. We can make any kind or shape if parties will furnish us with plans and specifications.

When ordering mention size, whether Galvanized or Painted. Made from Galvanized or Painted Iron.

Always carried in stock. In applying, lap about 2 inches.

DISTANCES BETWEEN SUPPORTS.

For Corrugated Roofing, Standard Gauge should be laid on sheeting boards or strong lath, not more than 1 to 2 feet from centre to centre.

For No. 16 gauge, 7 to 9 feet from centre to centre.

" "	18 "	6 "	7 "	" "	" "	" "
" "	20 & 22 "	4 "	5 "	" "	" "	" "
" "	24 "	2 "	4 "	" "	" "	" "
" "	26 "	2 "	" "	" "	" "	" "
Standard	"	2 "	" "	" "	" "	" "

Or use on close sheeting boards or on 4 inch strips, 12 inches apart.

For Siding, the bearings may be farther apart than for Roofing, though a nicer and more perfect job is obtained by placing the bearings closer together.

LIST PRICES PER SQUARE**—OF—*****Plain and Corrugated Roofing, Siding and Ceiling.***

Standing Seam Steel Roofing, Standard Gauge, \$3.75 per square.

" Iron	" "	" "	3.50	"
" Galvanized	" "	" "	6.50	"
V Crimped Steel	" "	" "	3.75	"
" Galvanized	" "	" "	6.50	"
Corrugated Iron Roofing $2\frac{1}{2}$ in.	" "	" "	3.75	"
" Galvanized	" "	" "	6.75	"
" Iron	" $1\frac{1}{4}$ "	" "	3.85	"
" Galvanized	" "	" "	7.00	"

All other gauges, quoted upon application.

Beaded Sidings and Ceiling, Standard Gauge, \$3.75 per square.

" "	" Galvanized	6.75	"
Weather-board Siding, Standard Gauge		4.00	"

" " Galvanized 7.00 "

Discounts furnished upon application, also complete price list of our other Products, not mentioned in this list.

All these prices are F. O. B. at factory.

Write us for any further information.

Tools for applying any of the above goods, sent with order if required, but not unless so stated.

When ordering Corrugated Iron, state distinctly what kind of roofing or Siding you want, the number of Iron, whether painted or galvanized, and what corrugate.

METALLIC PAINTS.

For painting Steel, Iron and Tin Roofs, Factories, Mills, Farm and other buildings, and Iron Work of all kinds.

We guarantee them made from the best material, and the most economical paints in the market.

These paints are finer and purer than any other kind, and spreads further. As a roofing paint they have no equal.

One gallon will cover from 400 to 600 square feet. We put it up in packages from 1 to 50 gallons. Write us for prices. We sell it in three different forms: Dry—Paste—and Ready Mixed. Special prices to dealers and large consumers.

METALLIC CEMENT.

Roofers and builders have long felt the need of some material to take the place of solder for repairing old roofs. The successful use of our cement for 16 years gives us utmost confidence in introducing it as the only Cement in the market that can be used with success in laying or repairing Iron, Tin Roofs or Gutters.

It is very adhesive, sticks to anything, will not crack in Summer or Winter, easily applied with knife or trowel.

We guarantee our Cement to be free from Acids, Alkalies or Tar substances, thus leaving the water from the roof perfectly clear and pure.

It's composition is such that it remains in an elastic condition for years, at the same time hardening on the surface sufficiently to walk over it without injury.

By thinning it down with Boiled Linseed Oil, it makes the best paint or coating for Steel, Iron or Tin now in use.

Old Tin Roofs and Gutters that were re-painted some 10 years ago and seemed comparatively worthless at the time, are good to-day.

We put it up in cans holding 15, 25 and 50 pounds.

Send for Price List.

TARRED FELTS.

We carry constantly in stock a large supply of Tarred Felts and Sheathing Papers, but would in all cases recommend our Steel and Iron Roofing where a good, substantial and durable Roof is required, in preference to a Tarred Felt Roof. The principal use to which Tarred Felt Paper is applied is for sheathing and lining under slate, iron, tin shingles, &c., for which we specially recommend it. Send for prices, terms, &c.

OUR No. 1 TARRED FELT

Is specially adapted for slag and gravel roofing, sheathing and lining under slate, tin and shingles, between floors and partitions, and is proof against vermin, moisture and gases. In rolls 32 inches wide, weighing from 40 to 50 pounds each ; one pound will cover 7 square feet.

OUR No. 2 SLATERS' FELT

Is used for the same purpose as No. 1, but more especially for under slate and shingles. It is also of a finer texture, which makes it more durable and stronger. In rolls 36 inches wide, weighing about 50 pounds each ; one pound will cover about 12 square feet.

OUR No. 4 COMMON SHEATHING PAPER

Is only used where a cheap and common article is wanted. In rolls, 36 inches wide, containing 1000 square feet.

ROSIN-SIZED SHEATHING.

Nos. 5, 7, 17 and 20. These goods are thoroughly sized by adding rosin to the pulp while the paper is making, so that it will resist dampness. They are perfectly odorless and air-tight. These papers are used for all sheathing purposes, such as lining under weather-boards on dwelling houses, ice houses, barns, ice boxes and refrigerators ; between floors and partitions, under slate and tin to exclude air and dampness. In Rolls 36 inches wide. The Nos. 5, 7 and 20 contain 500 square feet in each roll, and the No. 15 contains 1000 square feet in each roll.

RED MANILLA SHEATHING.

Our Nos. 6, 6X, 6XX and 8XX are papers that are as near waterproof as can be made without saturating with a compound. They are very strong, and will endure handling without injury, which not only insures a tight job when completed, but on account of its waterproof qualities will keep walls and ceiling dry. They are also free from any odor. These papers are used for the same purposes, as the Nos. 5, 7, 17 and 20, and also on walls and ceilings in place of plaster, Nos. 6, 6X and 6XX in rolls 32 inches wide, and the No. 8XX in rolls 36 inches wide. Each roll of these papers contains 500 square feet.

DEADENING AND CARPET FELTS.

Our Nos. 9 and 28.—These felts are soft and elastic and moth-proof being chemically treated. They are used for laying under carpets, lining refrigerators and ice-boxes between floors and partitions, to deaden sound, wrapping hot air and steam pipes, for lining cars and barrels for shipping vegetables and fruits. When used under carpets it prevents dust and dampness arising from cellars, when hot air or steam pipes are wrapped with these papers it is important that the pipes should first be wrapped with one or two thicknesses of our No. 18 asbestos sheathing. In rolls 36 inches wide. The No. 9 contains 500 square feet in each roll, and the No. 28 contains 250 square feet in each roll.

HYGEIA SHEATHING.

HEALTHFUL—WATERPROOF—AIR-TIGHT.

Nos. 26 and 27.—These papers are thoroughly waterproof, besides being a first class sanitary sheathing. They are used for any purpose for which other sheathings are wanted, especially under clap boards in dwelling. In rolls 36 inches wide: The No. 26 contains 900 square feet, and the No. 27 contains 500 square feet in each roll.

ASBESTOS SHEATHING.

Our No. 18.—This paper is made entirely from mineral fibre, is absolutely fireproof, and has proved very valuable for lining between floors and partitions to prevent fire from spreading rapidly. It is also used for lining boiler houses and places where fire is liable to originate, and for wrapping hot air and steam pipes. In rolls 36 inches wide, containing 250 square feet.

RED MANILLA SHEATHING.

When used for walls or ceilings instead of plaster, it should be well dampened on the side next to the studding before application and applied when in that condition. The edges must be fastened at the same time. When glue or paste is used, the paper must be well saturated a few minutes before it is applied.

LINING AND SHEATHING.

Can be put on up and down or crosswise, as may be the most convenient, when the first is adopted the seams should of course come on the centre of the studs, so that there will be no cracks or crevices, when it is put on crosswise, the edges should be so lapped as to leave no space to admit air.

RECEIPT FOR PASTE.

Into six quarts of boiling water sift four pounds best wheat flour, stir until smooth, allow to cook a few minutes, after this has cooled stir in two pounds dextrine dissolved in a quart of cold water, also add one ounce of powdered alum. If dextrine cannot be had, dissolve one-half pound of glue in hot water and paste while it is hot. When glue is used the paste should be kept warm. With dextrine in, can be used cold. Add the alum in either case.

Send for samples, prices, terms, etc.. to

N. A. HALDEMAN & CO.,

59 N. SECOND ST., PHILADELPHIA, PA.

AGENCIES.

An agent for our goods means simply a customer for his place and vicinity ; he buys the goods from us when wanted, and makes his own selling price to his customers.

We furnish each agent, free of charge, lithograph hanger cards and circulars, printed specially for his use, with his name on as agent. We also furnish electro-types free if he desires to advertise in local papers.

We give certificate of agency and charge nothing for territory, but require him to buy tools for applying our goods within three months, otherwise the agency will be considered abandoned and revoked at our option.

He may hold the agency so long as he complies with the agency contract and buys not less than \$200 worth of goods each year.

Should he wish to quit the agency at any time we will buy the tools back at cost, less \$5 per year for their use.

It is to the best interest of the agent to put himself in good business shape by buying tools to save return charges, and keep a small stock of the goods on hand for small jobs and instances where the job would be lost if the consumer had to wait until the goods could be obtained from the factory.

Consumers like to buy of the man who is best fixed for doing work promptly and satisfactorily.

When anyone establishes himself as an agent with tools, we refer all inquiries from his vicinity to him, and protect him as far as possible.

Where we have no agent we sell direct to the consumer. Any one can buy and sell our goods in territory not taken.

Agents desiring to give the best satisfaction, build up a large trade and baffle competition, must sell only the best plan of construction and quality of goods, and be energetic and business-like at all times.

 No goods shipped to be sold on commission.

TERMS.

Goods sold on cash quotations must be cash on delivery.

Thirty days from date of invoice given parties having good commercial rating, or known to be responsible and prompt.

Parties not well rated or not known to be responsible, and wanting credit, must furnish good references, from whom satisfactory reports as to financial responsibility must be received by us before bill of lading of shipment will be released and credit allowed. Otherwise they must pay our sight draft with bill of lading attached at bank or express office, on arrival of goods ordered, which will enable them to obtain the goods at depot.

Small orders from transient customers must be accompanied with the cash.

Remittances must be made by N. Y. draft, express, P. O. money order or postal note, and not by personal check, unless exchange is added. Exchange, express charges and telegrams must be prepaid.

All accounts subject to sight draft without notice after maturity.

No extension allowed, nor more than thirty days' credit given, except to parties financially responsible, on note bearing 6 per cent. interest after thirty days.

Special tools loaned for applying our roofing; tools to be returned to us freight prepaid on completion of roof.

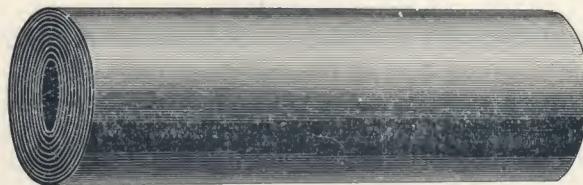
Tools must be returned as soon as the roofing is laid, with our return card attached, and bill of lading sent us as proof of shipment, to enable us to trace if lost in transit, and know whose account to credit with tools returned.

Tools detained without special permission will be considered sold and subject to sight draft.

Awaiting your orders,

Respectfully yours,

N. A. HALDEMAN & CO.

GALVANIZED STEEL ROOFING.**Fig. 25.**

We are putting up in rolls, similar to our Standing Seam Steel Roofing, Galvanized Steel Roofing, in sheets of same length, width and gauge, to cover when laid 100 square feet. There are 6 sheets to a square, each sheet 104x26. We are the only manufacturers, putting Galvanized Sheet Steel up in this form.

The sheets are jointed together by a perfect Crosslock Seam making a continuous roll.

We also corrugate these sheets for roofing and Siding.

We also recommend the use of Galvanized Roofing and Siding.

The metal is protected in the best manner and will not rust.

It is suitable for any climate and does not have to be painted, therefore the first cost is the only one. It is not subject to injury from natural causes, and unless abused will last indefinitely.

Directions for applying. See instructions for laying our Steel and Iron Roofing.

All gauges carried in stock, in rolls or sheets. Write us for samples and prices.

ROOFING TOOLS.

Our Steel and Iron Roofing cannot be laid correctly and rapidly without using our tools, made specially for our Roofing. We always send tools, except to Agents having a set of their own.

We charge nothing for their use except return freight or express charges, and when returning tools always bill them as a box or bundle of iron castings, so as to get a lower freight rate—with a card attached showing who returned them.

To Agents selling 200 squares or more we give them full credit for tools, allowing them to keep them as their own; or where in case they have already paid for them (as is required by agents in order to be protected in their territory) we give them credit for the amount they have paid on them in their next bill of goods.

See our printed instructions for applying our Roofing sent with sample.

We charge our Agents exactly just what the tools cost us, which is \$11.50.

THE BOSTWICK FIRE PROOF STEEL LATH.

Fig. 26.



Showing Bostwick Patent Fire-Proof Steel Lath, with expanded loops and corrugations. The plaster, when applied, passes under the loops and through the opening, thus forming a double key to the mortar.

TO ARCHITECTS AND BUILDERS.

The Bostwick Patent Fire-Proof Steel Lath is rapidly taking the place of the old-fashioned wood lath. Its benefits are apparent :

It is fire-proof, and a large saving is realized on insurance where it is used.

It has already been demonstrated that a workman can put on about three times as much of this lath in a day as he can of wood lath.

That a plasterer can plaster more than double the number of square feet on this lath than he can on wood in a given time.

That the Bostwick Patent Steel Lath will make a stronger wall than wood lath, and one which is less liable to crack from settling of walls.

That the plaster is much less liable to fall off from this lath than from wood, because it is so thoroughly keyed by loops.

That a given amount of plaster will cover nearly twice as much surface on this lath as it will on the wood lath, because the surface of the Steel Lath to be covered is even and unyielding, and the openings being uniform and sufficient to guarantee a stronger key, will not admit of waste mortar falling off from the back of the lath.

That a finished wall with this Steel Lath will cost but little if any more than when wood lath is used, because of the great saving of material and labor.

The Bostwick Patent Steel Lath has been examined by the principal Architects, Builders and Insurance Companies, and is pronounced by them to be the best Steel Lath yet produced.

BOSTWICK FIRE-PROOF STEEL LATH CO.,

N. A. HALDEMAN & CO.,

Eastern Agents.

INDEX.

	Page.
Goods we Manufacture,	2
Remarks to the Trade,	3
Steel and Iron Roofing,	4
Plan of Construction,.....	5
Directions for Laying,.....	6—7—8—9
Our Guarantee,.....	10
Iron Roofing,	11
How Prepared,	12
How Shipped,	13
Lightning and Water Proof,.....	14
Why better than separate Cap Roofs,.....	15
How Long will it Last,.....	17
Directions for Repairing Iron Roofing,.....	18
V Crimped Roofing,	19—20
Instructions for Flashing Chimneys,.....	21
Corrugated Iron,.....	22
Corrugated Sheets,.....	23—24—25
Directions for laying Corrugated Iron,.....	26—27
Beaded Sidings and Ceilings,.....	28
Iron Weather-Boarding,	29
Ridge, Corner and Hip Capping,	30
Prices per square,	31
Metallic Paints and Cements,.....	32
Tarred Felts and Building Papers,	33—34—35
Agencies,.....	36
Terms,.....	37
Galvanized Steel Roofing,	38
Fire-Proof Steel Lath,.....	39

N. A. HALDEMAN & COMPANY,

59 North Second Street,

Philadelphia, Penna.

40

N. A. HALDEMAN & COMPANY,

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Galvanized Steel Roofing, 38

Fire-Proof Steel Lath, 39

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